

provide a 40% noise band area. The upper and lower thresholds may be stored in a data store by the circuit and/or software operating in the automated banking machine. Signals will need to be equal to or above the upper threshold to indicate that a passage is not blocked. Signals will need to be equal to or below the lower threshold to indicate that the passage is blocked.

5 In addition the calibration method may include setting a recalibration threshold between the sensor unblocked value or baseline and the upper threshold. The sensor reading can be continually checked against this threshold to indicate when the sensor needs to be recalibrated. The recalibration threshold may be stored/set by software operating in the automated banking machine. Signals below this recalibration threshold may indicate recalibration of the circuit is
10 required.

As shown in Figure ~~1110~~¹¹⁰ in this described exemplary embodiment, a modulated PWM may be used. The carrier frequency may be 10kHz and the sub-carrier frequency may be 500kHz for example. The demodulation signal may be 10kHz with a 50% duty.

Exemplary embodiments of the automated banking machine may include accepting
15 devices which accept items from users of the machine. For example, the machine may include a cash acceptor which accepts individual bills or stacks of bills. In addition, the machine may include an envelope acceptor which receives deposits provided in envelopes. In each of these cases, the machine may store received bills, envelopes, or other items in a reservoir referred to herein as a cassette.

20 Figure 111 shows an example of an acceptor device 1100 of an exemplary embodiment of the automated banking machine which is operative to accept deposited items from users and store the deposited items in an internal storage area. Here the acceptor device 1100 corresponds to an